Dash Life

MODULAR OCCUPANT/ ATTENDANT USER GUIDE

RHealthcare
It's ability that matters

Table of Contents:

Item		*Page:*	
1	Amendment Record	2	
2	Important Symbols	3	
3	Wheelchair Features / Build Options	4	
4	General Warnings	5	
5	Intended User	5	
6	Important Product Information	6	
7	Handling and Stability on Steps and Slopes	12	
8	Seat and Posture Belts	13	
9	Occupant Controlled Mobility	14	
10	Transportation	14	
11	Tie Down Information	16	
12	Safety Precautions	17	
13	Wheelchair Cleaning and Maintenance	18	
14	Service Checklist	19	
15	Useful Addresses	19	
16	Wheelchair Technical Information	20	- Single cross brace (Basic)
		21	- Single cross brace
		22	- Double cross brace
		23	- Triple cross brace (Bariatric)
		24	- 24” wheel options
		25	- 22” wheel options
17	Wheel Configuration Chart	26	- 315mm wheel options
18	Distributor Stamp / Information	27	

IMPORTANT:
DO NOT USE YOUR WHEELCHAIR UNTIL THIS MANUAL HAS BEEN READ AND UNDERSTOOD.
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Amendment Record:

ISSUE	PAGE	AMENDMENT	DATE
A	21-22	Seat to ground info reversed for ease of reading. Assessment column added	27.04.2010
B	21-22	Factory setting re assessed; codes altered to suit	17.06.2010
C	19 to 23 & 15	17” model added; and also the 22” version Rear tie down bracket now orange	13.12.2010
D	Various	Dash Life, single crossbrace info, E.L.R AND Stump support info, telescopic seat tube extn info, revised product weights, single piece footboard info, additional bariatric sizes 18” & 20” added to range. New side fastening posture belt detailed.	23.3.2011
E	20-21-22 & 23	Technical data sheet figures rounded to comply with tender requirements	5.7.2011
F	Various	Additional Widths Added	08/04/2013
G	4 & 13	Additional Weight Ranges added, 190kg Castors added.	14/05/2013

2. IMPORTANT SYMBOLS IN THIS MANUAL

THIS SYMBOL WARNS YOU OF A RISK!
This symbol is used to give a warning or caution that is related to the safe use of the wheelchair. Follow the instructions to avoid personal injury or damage to the product.

This symbol indicates hints and suggestions, which should help make operating the wheelchair easier and point out any special functions.

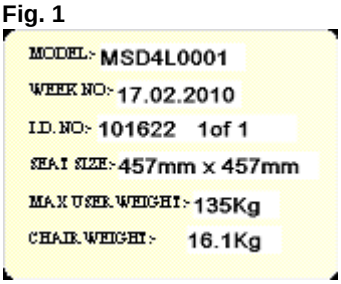
This symbol indicates hints and suggestions that should not be carried out while operating the wheelchair.

This symbol indicates the use of different tools and other adjustments or when service/maintenance may be required. It should only be carried out by suitably trained or competent persons.

2.1 WHEELCHAIR IDENTIFICATION

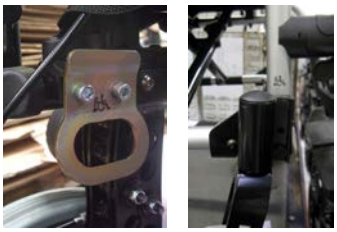
Each wheelchair carries a unique identification/serial number that is printed on the serial number label. This label is fitted on the rear of the wheelchair on the rear cross brace tube (Fig. 1) This label also carries the model code designation, which includes the wheelchair size and colour. In the event of any queries please have this information to hand if contacting R Healthcare?

Fig. 1



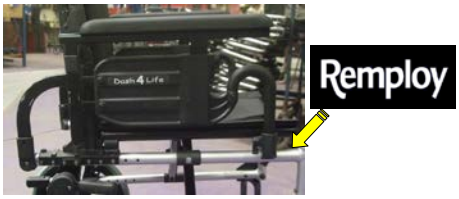
Label/Decal Placement

Tie down label placement



1. Dash 4 Life stickers are situated on the side panel, 2 per chair, one on each side of the chair

2. R Healthcare stickers are situated on the front of the side frame top tube, 2 per chair, one on each side frame



Company specific labelling / decals as shown

R Healthcare can be contacted as follows:
R Healthcare, Sheffield Road, Whittington Moor, Chesterfield, Derbyshire, S41 8NJ
Customer services: 0044+ 0870 60 90 600, e-mail: sales@R Healthcarehealthcare.com
Website: http://www.R Healthcarehealthcare.com

2.2. CARLESSNESS CAUSES FIRE

This label shows the position of tie down location points for wheelchair transport. (See section 6.3 on transportation) This label shows the model number, serial number, max. User weight and manufacturer details. This label shows the flame retardency details. The label is fitted to the rear of the backrest and seat.

2.3. RULES AND REGULATIONS

- The wheelchair is manufactured to meet the requirements of BS EN 12183
- The Upholstery meets the requirements of ISO 7176-16 and the fire and furnishing regulations SI1324. Other materials wherever possible are ignition retardant.

2.4. MODIFICATIONS AND ALTERATIONS

Making any unauthorised modifications or using none approved parts may change the wheelchair structure and create an unsafe condition.

CARELESSNESS CAUSES FIRE
Remploy Healthcare Ltd
BS EN ISO 9001 2008 Registered Firm

BATCH DATE REFERENCE	QUALITY ASSURED

MATERIALS & CONSTRUCTION to SI 1324 furniture and fire regulations 1988
Outer covering is polymer coated fabric there is no inner liner cushion combustion modified polyurethane foam padded quilting is PVC foam
ALL MATERIALS TO APPROVED STANDARDS

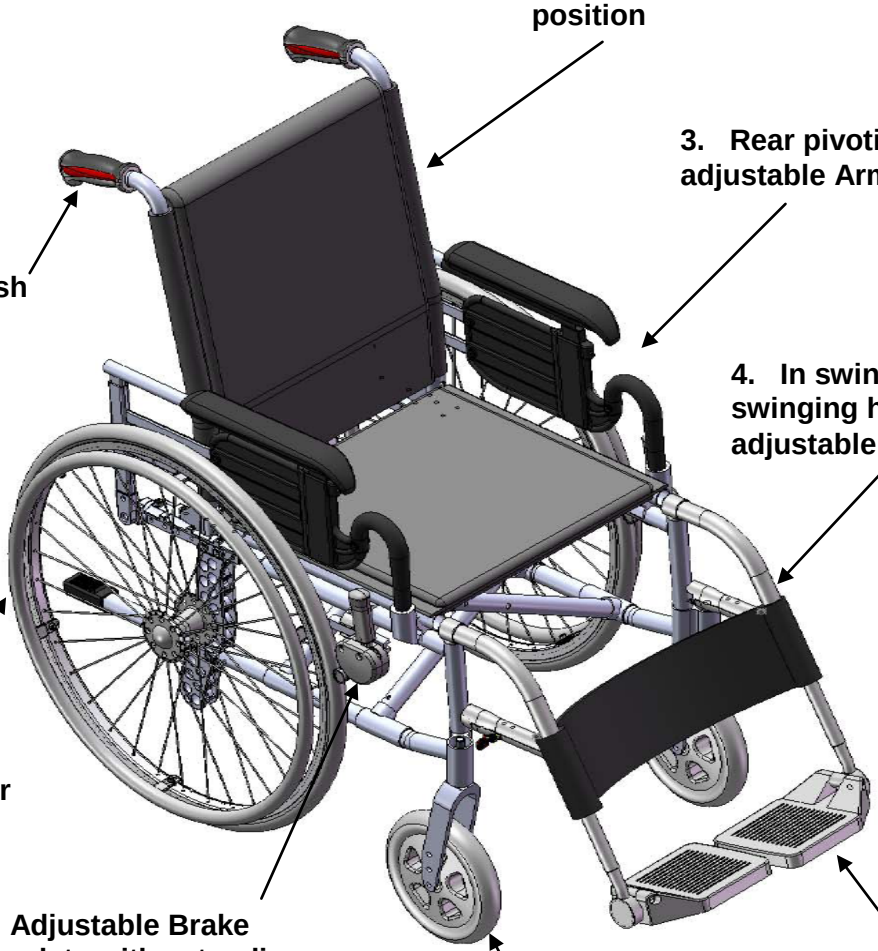
Neither R Healthcare nor your wheelchair provider will accept responsibility for damage caused by misuse or noncompliance with instructions or advice set out in this manual. Users attempting to use the wheelchair beyond the manufacturer's recommendations may put themselves at risk of serious injury or even death.

3. WHEELCHAIR FEATURES

1.1 DESCRIPTION OF WHEELCHAIR

The Dash 4 Life self-propelling folding wheelchair is fitted with 61cm (24") diameter wheels and the Dash 4 Life attendant propelled (transit) wheelchair is fitted with 31cm (12") diameter wheels.
The standard configuration for the wheelchair is shown below which identifies the key components.

1. Push handle
2. Backrest
3. Armrest
4. Footrest
5. Footplate
6. Front castor
7. Brake
8. Rear Wheel


2. Adjustable Backrest either to suit 16", 17"or 18" seat depths position
3. Rear pivoting; height adjustable Armrest
1. Foldable Push Handle
4. In swinging / out swinging height adjustable Footrest
8. Adjustable Rear Wheel. Supplied in either 22", 24" or 315mm(12")
7. Adjustable Brake complete with extending handle as standard
5. Angle adjustable Footplate
6. Height and angle adjustable Front Castor. Supplied in either 6" or 8"

TWO MODELS AVAILABLE

1.	Dash Life	-	125Kg or 135Kg
2.	Dash Life Bariatric	-	170Kg or 190kg

PLEASE REFER TO PRESCRIPTION FORMS FOR REQUIREMENT / OPTIONS

4. GENERAL WARNINGS

The removal of detachable parts that are supplied either as standard as prescribed or recommended by the user's prescriber, healthcare professional or wheelchair dealer, other than for the purpose of storing or transporting the wheelchair is not recommended and may compromise the correct use of the wheelchair by the user and the provision of any beneficial effects from the complete equipment.

Take precautions when using your wheelchair to avoid fire risks, such as avoiding smoking or parking against open fires or heat source.

Do not store your chair in direct sunlight. Direct heat such as sunlight will increase the temperature of parts on the wheelchair such as the frame or upholstery and they may be hot to touch.

Low temperatures such as frost will have the opposite effect and may make parts of the frame very cold to touch.

DO NOT hang items such as bags on the back of the push handles, as this can overload the chair and affect the stability of the wheelchair - causing it to tip over.

DO NOT exceed the occupant weight limit for your chair and do not carry more than one person. If you feel that your body weight may have changed then contact your healthcare specialist.

Using a cushion raises the seated position and may reduce the stability of your wheelchair. Some features and accessories may affect stability. Your healthcare professional can provide guidance on the stability of your wheelchair and should be consulted when cushions and accessories are being used.

Your wheelchair should be delivered already assembled. You should remove any packaging before use. If you have not used a wheelchair or are uncertain about any of the features of your wheelchair then please contact your healthcare professional, wheelchair dealer or your wheelchair service and ask for assistance. If you have been informed that you must receive specific instructions about your wheelchair before using it, and then it is important that you await this instruction for your own safety.

1. Turn the heel loops, if fitted, to the front of the footplate and then flip up the footplates.
2. Grasp the middle of the seat fabric at both front and rear and give a sharp pull upwards. This will part all close the chair.
3. Push both sides together to fold the chair completely. Ensure that the seat is not trapped in the frame when fully folded.
4. If required, fold the backrest down by pulling up the levers and lowering the push handles.

5. Intended use

Your wheelchair is intended for use in the home, the office, public places and buildings, on pavements, pedestrian paths and firm surfaces. It is intended to assist with the mobility of the user on the seat and should not be used as a ladder or as a means of pulling or transporting items, or similar.

Do not use the wheelchair on soft surfaces such as sand, deep snow, slush or mud as this may affect the stability.

Care should be exercised when using the wheelchair on wet or slippery surfaces such as wet cobbles or icy pavements, as these may cause the wheels to slip or may cause carers/attendants controlling the wheelchair to slip.

Using your wheelchair during darkness or in poorly lit areas.
When using your wheelchair during darkness or in poorly lit areas, then consideration should be given to the use of high visibility markers or reflectors that can be fitted to the wheelchair or the use of high visibility/reflective clothing such as fluorescent waistcoats, belts or armbands, particularly in poorly lit areas or when crossing the road.

Maximum safe slope
The maximum safe slope for this wheelchair is 8 degrees. (This represents a slope of approx 1 in 6).
See further notes and guidance in section 4.7 on wheelchair stability.

Users, carers and attendants attempting to use the wheelchair beyond the manufacturer's recommendations may put themselves at risk of serious injury or even death.

6. IMPORTANT INFORMATION

INTRODUCTION

The type of wheelchair, and attachment features, provided will be different according to individual user requirements, and clinical assessment of need. In many cases the result will be a compromise solution.

Some modular wheelchairs can be set up or finely adjusted to suit user needs. Users should contact their approved distributor if they are having problem in using their wheelchair, a simple adjustment or alternative build configuration may help to resolve the problem.

R Healthcare manual wheelchairs can be divided into two broad categories.

- Attendant Propelled (315mm (12" wheel)
- Occupant Propelled (22" or 24" wheel)

This general information section covers safety issues of wheelchair use covering all of these.

Please read carefully together with all other information provided, covering the specific model supplied, which will give particular details of the wheelchair features and construction, methods of operation and correct setting methods.

6.1 GETTING IN AND OUT OF A WHEELCHAIR FACING FORWARDS

For maximum safety, these operations should be carried out with the help of an attendant. The occupant should always try to assist the attendant wherever possible to share the total effort.

Carers should not attempt to lift without help. If this is not possible a hoist may be required.

Getting into the wheelchair.

Make sure that the brakes are on, flip up the footplates, taking care that the heel support straps (if fitted) are not jammed against the footrest support frame. On some models, footrests may be detached or swung away for easier access.

Note that when footrests are detached, the mounting swivels remain exposed and care should be taken to avoid the occupant catching these accidentally.

The occupant may be able to help by pushing on the armrests to provide support whilst being lowered into the seat. Finally, push the footplates down, and locate the occupant's feet on them. **see fig 2.**

Getting out of the wheelchair.

Make sure that the brakes are on**,** then flip up the footrests or detach them. The occupant should place a hand on each armrest, bend slightly forward and place both feet well back.

6.2 SIDE TRANSFER

When the wheelchair armrest is removed, it will allow sideways entry to the chair and vice versa, from another chair or car seat. **See fig 3.** Physically active Independent users with upper body and arm strength should eventually develop skill to carry out this manoeuvre without help. However, it is advisable that an attendant should be available if assistance becomes necessary.

Make sure the brakes are on, or that the wheelchair is prevented from moving, It is easier to transfer when flip up footrest assemblies are swung back out of the way, or removed so as not to interfere with the legs. Feet should be firmly on the ground and not on the footrest. The safest way to transfer is to bend slightly forward.

If there is a gap between the two seat surfaces, it may help to slide along a smooth transfer board, or to use some other lever point such as a car hand grip for additional support whilst manoeuvring from one seat to the other.

DO NOT ATTEMPT SIDE TRANSFER ON SLIPPERY OR UNEVEN FLOORS

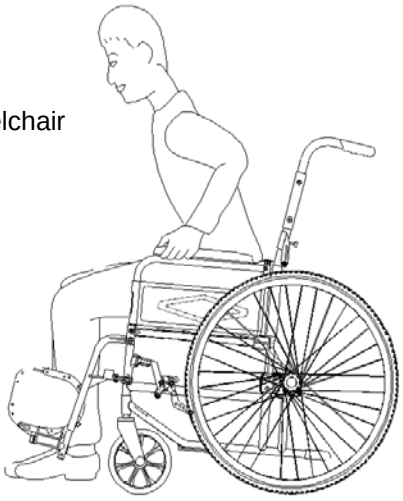


Fig 2 - Getting in/out of the wheelchair

Fig 3 – Side Transfer

Fig 4 – Maintain a firm grip on the push handles

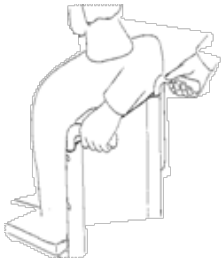


Fig 5 – Attendant Control

6.3 BRAKES

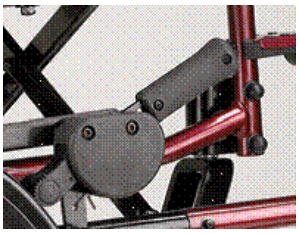
Hand brakes are provided for preventing wheel movement when parked, particularly on a slope, or during occupant transfer to and from the wheelchair. The action of a brake shoe pressing on the tyre makes correct inflation pressure important.

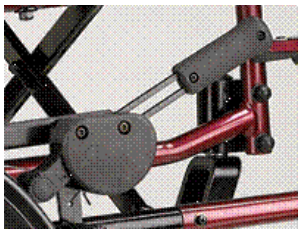
Cable operated attendant brakes are an option available for mounting on the push handles to allow the attendant to control the chair without having to reach down for the hand brake handle. These may also provide the attendant with a means of controlling the speed of a wheelchair when going downhill, and are a safety improvement on slopes and undulating terrain, as described in Technical Information Manual (Part B).

Operating the wheelchair in this way however, demands that the attendant is skilled in the controlling operation, as a sudden change in direction will result if one wheel is retarded in advance of the other.

Brake adjustment— Loosen sideframe brake bracket clamp, and drop brake sub assembly until there is a 5mm gap between the brake and the tyre while in the brake is in the off position. Tighten and secure to 10ft/lbs ensuring tyre is central to the brake shoe.

Images showing extending brake handle





6.4 PUSHING TECHNIQUES

Pushing a wheelchair with a helpful occupant can be an enjoyment for both people involved provided that there is mutual confidence and understanding.

When first planning a trip, the pusher should check the distance and terrain to be covered, bearing in mind that a slope going out is a hill coming back. A combination of slope and camber is common in many areas. Try the chair out on typical surface conditions nearby, and practice manoeuvres likely to be encountered on a longer trip.

The pusher should be familiar with the operation of the wheelchair, remembering to put the brakes on and steady the chair before the occupant gets in and out.

Where applicable, detachable features such as push handles and armrests should be checked for security, before setting out on a journey. The occupant should not be rushed during transferring in and out of the chair.

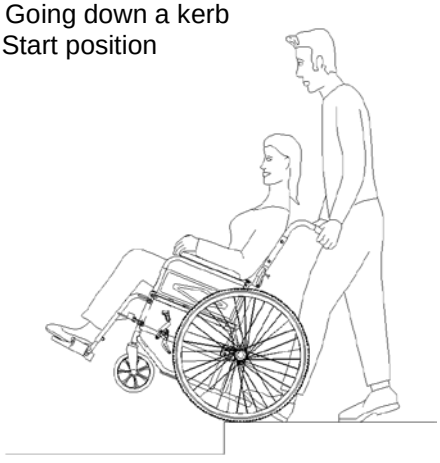
Before setting off, the pusher should make sure that the occupant is comfortable and that clothes, rugs, covers etc do not catch in the wheels or interfere with the general workings of the wheelchair.

The pusher should walk at a sensible speed, and tell the occupant before changing position, tipping the chair or manoeuvring, also paying attention to the surface conditions and avoiding uneven or soft ground wherever possible.

The pusher should always maintain a firm grip on the push handles. The chair should not be jolted or jarred, or rocked like a pram. **See figs 4 & 5.**

Shopping bags or other additional heavy loads should not be carried in a wheelchair unless specifically designed for the purpose. This particularly applies to hanging items over the push handles, which can overload the chair and affect stability resulting in injury if the occupant tips out of the chair when it is left unattended momentarily.

Fig 6 – Going down a kerb
Start position



Make sure that the front end of the chair is lowered slowly to the floor, and that the castors are pointing to the rear.

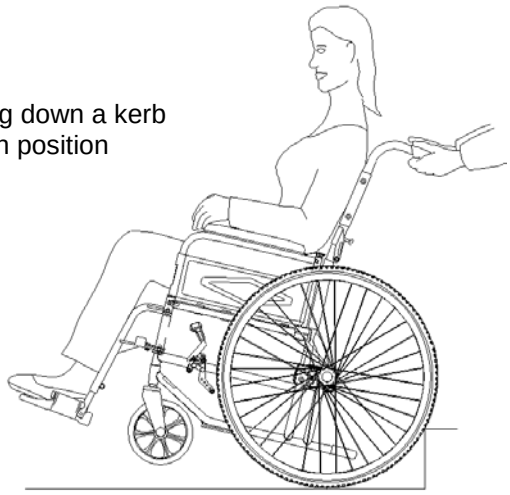


Fig 7 – Going down a kerb
Finish position

Castors with small wheels are more liable to dig in, than large wheels, and require extra care in use.

6.5 KERBS

Negotiating a kerb.
The methods described here involve an attendant controlling the operation. Active users adopt balancing techniques carry out kerb manoeuvres independently, but methods will vary according to the setting of the chair, the physical strength of the user and skills acquired through training and practice with wheelchair experts. See section 1.6.

Going down a kerb:
The chair castors should be taken to the edge of the kerb. The pusher should hold the chair handles firmly, pressing down on the tipping lever and at the same time tilting the chair back. **See fig 6 & 7.**

The rear wheels can then be taken to the kerb edge and the foot removed from the tipping lever. The chair is then lowered down the kerb on its rear wheels, with the castor wheels facing rearwards, *this prevents them jamming up momentarily as the chair starts to move*, before pivoting the chair gently to the ground, to face direction of travel and then pushing forward.

Note: The chair must not be tipped for ward or the occupant may fall out. When stabilisers have been fitted, this operation is more difficult to control, and extra care should be taken.

Going up a kerb. First method.
The chair footplates, or occupant feet if longer, should be taken to just in front of the kerb edge. The pusher should hold the chair handles firmly, pressing down on the tipping lever, tilting the chair backwards using body weight leverage, bringing chair forward till the back wheels touch the kerb.

The front castors wheels can then be lowered down onto the path, making sure that the wheels are facing rearwards. With the push handles held firmly the attendant should now lift and push the chair.

Going up a kerb. Second method.
The chair should be turned round so that the back wheels are against the kerb and the attendant should hold the pushing handles firmly and tip the chair backwards.

Using body weight as leverage the attendant should then pull the chair off the kerb and up onto the pavement, making sure, as above that the castor wheels are facing rearwards.

The chair may then be pivoted to face the direction of travel and pushed forward.

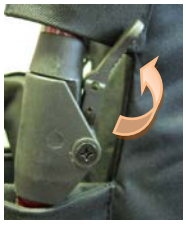
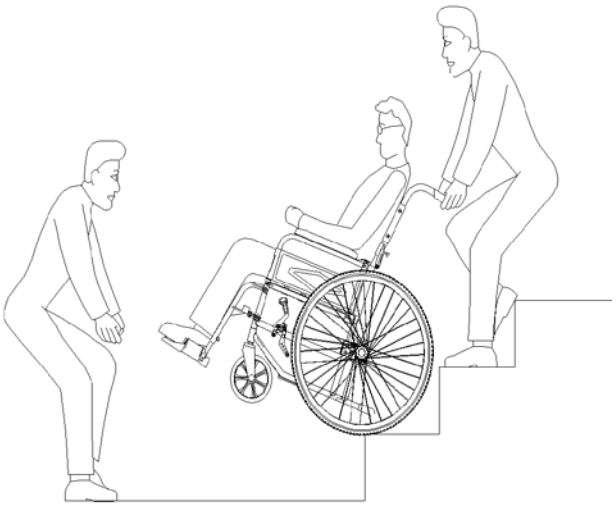


Fig 8 – Apply pressure to release and engage push handle as per above. Ensure that push handle locks are fully engaged before using the chair.

Fig 9 – Going down/up a flight of steps



6.6 Wheel Mounting Bracket.

The image below shows show how the wheel mounting block is fitted to the chair and how it can be reconfigured by repositioning it through the alignment of the available holes in both the slide moulding and the side frame

R Healthcare recommends that trained personnel configure the chair and carry out necessary adjustments following professional assessment.

Wheel Assembly.

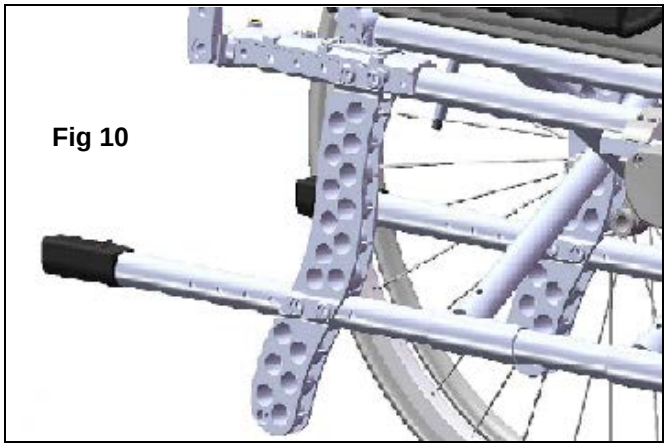


Fig 10

WHEEL CONFIGURATION CHART DETAILED ON PAGES 23, 24 & 25 OF THIS MANUAL

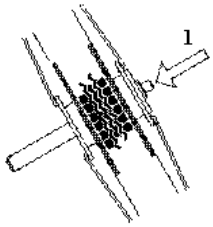


Fig 11 – Quick release button release

Quick release self - propelling wheels

Your wheelchair may be fitted with quick release wheels; either 22" or 24". Quick release wheels can be removed from the wheelchair to make it lighter for lifting and easier to store. To remove wheel: Press the button (1) in the centre of the wheel and slide the axle and wheel out of the axle bush fully **see fig 11.** To replace wheels: Reverse the above procedure and depress the centre button of the axle and push the exposed axle into the wheel bush. When the axle/wheels are fully inserted, release the centre button.

Make sure that the button is fully released and that the wheel is secure in the axle bush by pulling the wheel gently away from the wheelchair. The wheel should remain in the same place.

Always ensure that the quick release wheels are fully engaged with the locking ball bearings on the axle shaft fully engaged and visible on the inner side of the axle bush.

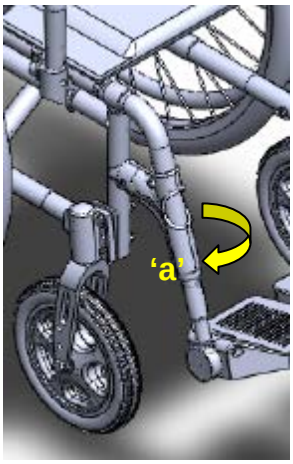
Never mount the quick release rear axles with the release button positioned inside the frame. This will cause the wheels to release when the chair is folded.

Do not alter the position of the wheels in the wheel mounting blocks without the approval of the person prescribing the wheelchair.

6.7 FOOTREST

Correct positioning of the footrests to suit occupant size and position is very important as it has a major effect on distribution of seating pressure. The underside of the occupant's legs should be supported as far forward as possible over the length of the seat, to reduce high-pressure areas. When transferring to and from the wheelchair, avoid contact and weight on the footrest, as this will cause the wheelchair to tip forwards.

To detach the footrest assembly: Pull the lever **'a'** sideways and swing the footrest inwards or outwards and lift out of the frame. To attach the footrest assembly: Locate the footrest in the front frame and swing it round to the centre of the wheelchair until it locks securely into position.



Keep fingers and other items away from the footrest attachment assembly when it is being

6.8 FOOTPLATE ADJUSTMENT

Both the height and the angle of the footplate are adjustable.

Tools required: 4mm & 5mm Allen Keys

Non angle adjustable as used on our Dash 4 Life Basic model

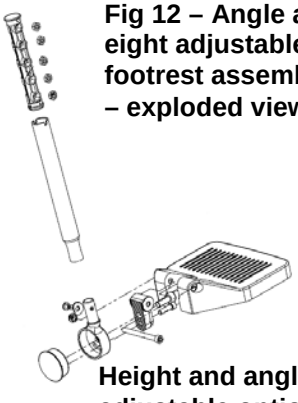
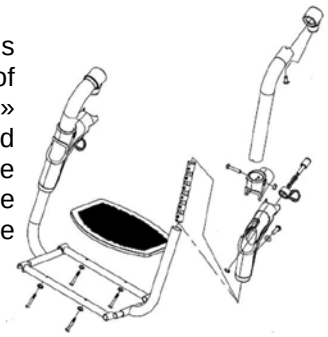


Fig 12 – Angle and eight adjustable footrest assembly – exploded view

Height and angle adjustable option

ONE PIECE FOOTBOARD

A one piece footboard is available across all sizes of the Dash 4 Life range; 15" » 24". The footboard is supplied complete with purpose made swingers. These fit onto the existing attachments on the front tube of the wheelchair



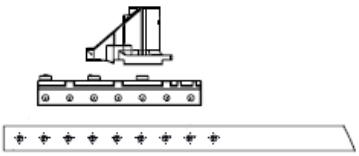
6.9 STABILIZERS

Stabilizers can be fitted if there is a risk of the user tipping the chair backwards. Their position affects the angle that the chair can tip back to before it touches the ground. R Healthcare recommends that trained personnel configure the chair and carry out necessary adjustments following professional assessment prior to use.

Adjusting the stabilizers can adversely affect the performance of the wheelchair.

6.10 BACKREST

The backrest can be configured in two optional settings; front and back. This allows the seat depth to alter between 16", 17" and 18". **See fig 13.** The angle of the backrest can not be altered unless the chair is of the reclining type. However there are four options of backrest angle that can be purchased; 0º, 5º, 10º 15°& 20º



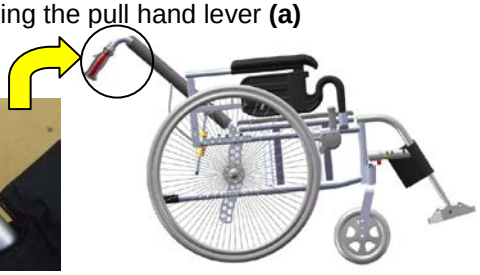
A full options configuration chart is available on pages 23, 24 & 25 of this document.

Tools required – 4mm Alan Key, 10mm spanner

A reclining version of the Dash 4 Life is available in all widths.

Fig 13

Backrest angle adjustment – Adjust the angle of the backrest by using the pull hand lever **(a)**



Backrest brace bar is available as an option to be fitted to any size or configuration of chair.

2 x 4mm screws attach the brace bar to 2 x nut-serted holes in the upper backrest tube

6.11 ARMRESTS

Lightweight Armrest

This version is supplied as standard on the model D4L Basic; however; it is available as an option on all other models

The armrests are both removable, height adjustable and they also pivot fully to allow for transfer.

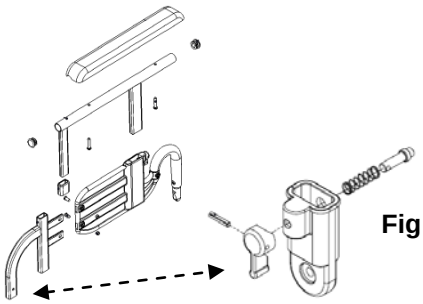


Fig 14

6.12 CROSS BRACE ASSEMBLY

There are eleven options of cross brace width ranging from 12" through to 24". All weight and dimensional information is detailed within the Technical data sheets ref pages 20, 21 & 22 of this document.

The scope of the Dash 4 Life in terms of weight of occupant runs as follows.

Single Cross Brace – 125Kg maximum user weight

Double cross brace – 135Kg maximum user weight

Triple cross brace (Bariatric) – 170Kg & 190kg max user weight

Tools Required – 4mm Allan Key, 10mm spanner and a soft hammer

Double cross brace shown above **See fig 15**

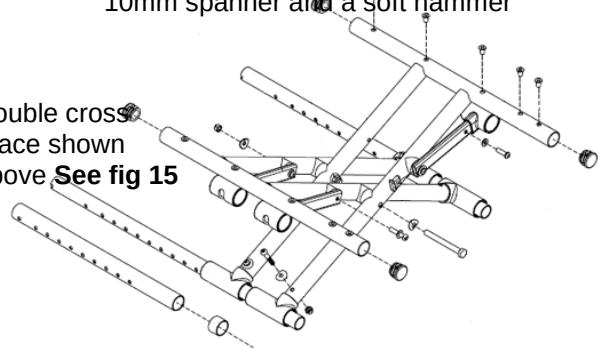


Fig 15

Remploy recommends that trained personnel configure the chair and carry out necessary adjustments following professional assessment.

6.13 CASTORS

Fig 16 – Castor assembly – exploded view

There are three height options on the castor assembly as well as a choice of two castor wheel sizes; 6" and 8". There are two weight capacity's, up to 170kg and up to 190kg. All options and configurations are detailed in the technical data sheets at the end of this document

6.14 ELEVATING LEGREST

When these are fitted to a wheelchair, they provide support to the underside of the user's calf, at a range of angular positions.

They fit into the top of the front tube; latching into the cast bracket; also on the front tube of the wheelchair, and can be released and swung away or removed during side transfer or other manoeuvres in the same way as the standard Dash 4 Life type footrest.

The calf support pad can be swivelled through 90 degrees for sideways folding of the wheelchair. Users or carers should ensure that the locking latch is fully engaged the when refitting the Legrest or any similar adaptation prior to use.
Angular calf support adjustment is by means of a sprung release trigger, which locks along a fixing bar at any preferred position within the adjustment range. Operation of this requires a degree of finger strength, and it is recommended that this is carried out by a carer if required. Users are reminded that when the Elevating Legrest is adjusted to a high position, the swing away action requires greater space.
Alan Key (4mm) adjustable clinching feature to adjust footrest height is located at the end of the bracket.
Note that the fitting and position of the Elevating Legrest can alter the balance of the chair. This is particularly significant when the Legrest is fully extended, and supporting a large heavy limb. In this position, weight distribution may be such that the wheelchair is balanced towards the front wheels, with the rear wheels taking only a nominal weight. This affects general chair control and also effectiveness of brakes.

When weight is on the front wheels, control of the wheelchair in an outdoor environment particularly going downhill can become impossible, and this should always be avoided.

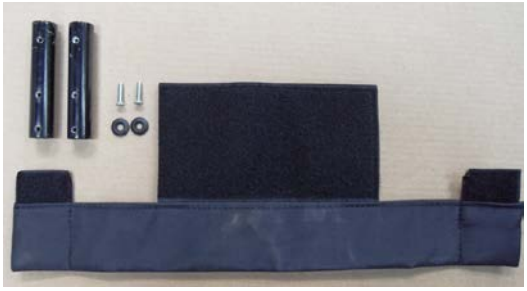
6.15 STUMP SUPPORT

Originally developed for post operative below knee amputee care where keeping the stump horizontal improves the natural healing process. This support also provides a comfortable long term option for some amputees who may continue to use a wheelchair for mobility, in some circumstances. The R Healthcare Stump Support fits into the front Frame footrest swivel brackets.

The support pad is on a height adjustable stem. Adjustment however should only be carried out by an authorised professional who understands the clinical requirements.
Users and occupants should note that leg and stump supports should not be used as seat extensions, or occupant transfer support.

chair.

6.17 Telescopic Seat Tube Extensions

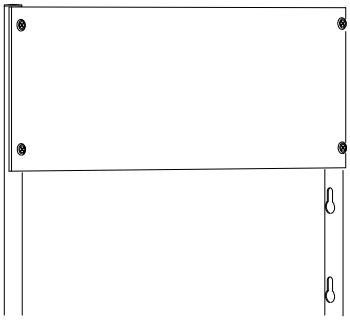


The above kit can be used to extend the standard 16" deep seat canvas to achieve 18". Two separate kits are available; these being 17" deep seat (1" extension) or an 18" deep seat (2" extension. The tubes supplied are inserted into the rear of the seat tube; and then the seat canvas extension fitted

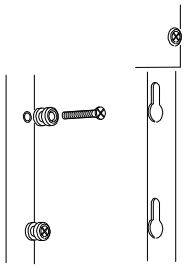
Remploy recommends that trained personnel configure the chair and carry out necessary adjustments following professional assessment.

6.18 Backrest Extensions

These are available in a range of height and width sizes, and are made for fitting into the upper backrest Frame of all the above models using an adaptor kit.
The backrest extension itself comprises a pair of straight tubes to which a supporting canvas to suit the required chair width is secured by fixing screws to the face of the tubes, in the same manner that the seat canvas is secured to the chair Frame.
The backrest adaptation kit has two bobbins for each side which should be screwed into the insert points in the outside of the Frame. These bobbins remain a permanent feature on the chair Frame to facilitate location of the backrest extension by means of the keyhole slots, which are cut into the inside face of each extension tube.



The keyhole slot feature allows easy assembly of the backrest extension or removal for storage of the chair by the attendant or carer. When the chair is fully open, the tension in the supporting canvas makes removal of the extension difficult, and when fitting or removing the extension, the chair should be in the closed position.



DETAIL OF BOBBINS AND KEYHOLE SLOTS

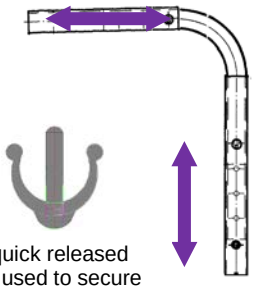
R Healthcare recommends that trained personnel configure the chair and carry out necessary adjustments following professional assessment.

6.19 Tray

The Dash 4 Life has a retrofitable tray which is attached by using the tray brackets supplied.

When fitting adaptations such as these, we advise that the user and carer are made aware of the circumstances of intended use when the attachment must be removed. This would certainly be necessary in occupant transportation in a vehicle, and removal may be required during other outdoor activity where there is an adverse effect on performance e.g. stability on sloping ground, or climatic effects.

HEIGHT ADJUSTABLE PUSH HANDLE



2 x quick released pins used to secure height and depth adjustment

The Height Adjustable Push Handle is designed for use on the model Dash 4 Life. It allows for the increase of both the height and depth of the push handle. The height adjustable push handle replaces the existing push handle on the chair and is available as spare. The tube-work attaches to the existing plastic pivot moulding on the side frames. The existing single fastening is used to re attach the assembly. The push handle can be used in any application the non-adjustable push handle can be used in but it also means that when used with a power pack the push handle can be extended to allow a greater distance between the attendant and the chair to allow for a more normal stride pattern. The adjustable push handle will also be useful for tall attendants who currently have to bend excessively.

R Healthcare recommends that trained personnel configure the chair and carry out necessary adjustments following professional assessment.

7. HANDLING & STABILITY ON STEPS & SLOPES

DO NOT ATTEMPT SIDE TRANSFER ON SLIPPERY OR UNEVEN FLOORS

A little forward planning can eliminate difficult manoeuvres such as steps. Modern public buildings should provide permanent wheelchair ramps, with a practical slope angle, built according to regulations, for safe access.

Technical Test data on stability of wheelchairs should be seen as a tool for comparison. Data does not convey actual feel of the wheelchair in the intended environment. Initial supervised user training and assessment by a rehabilitation professional, with the wheelchair in the intended usage environment is recommended, and users should ensure that they are confident with regard to this aspect of use.

An important factor in considering accessibility and slopes is the effort demanded from the occupant or attendant using the chair (attendant brakes are an available option). Pushing up a steep slope which extends over a distance, may create a need to stop and rest, which in turn demands additional and undesirable effort to start back upwards again. Stopping a wheelchair on a steep downward slope also demands effort and control, and surface conditions need to be taken into account when deciding what outdoor route to take. Manoeuvres, which demand over exertion, may create risk of injury to the user and should be avoided. However, if in temporary difficulty, wheelchair users should not hesitate in asking for assistance from people nearby, someone will usually be happy to help.

Modern buildings should have slopes built to a required standard angle, but this is not the case with all access areas. Learning the geography of an area is important. As an all round guide, a maximum safe slope of 8 degrees is our recommendation for the R Healthcare range of manually propelled wheelchairs. However this recommendation may need to be changed if the wheelchair has attachments added to it, such as an elevating legrest or carry bag, which adversely affects stability. Such changes to the chair specification may have a critical effect, and they require re-assessment by

SAFE SLOPE OF 8 DEGREES FOR MANUAL WHEELCHAIRS, DYNAMIC STABILITY ON PAGES 23, 24 & 25

Where possible, the hazard of negotiating steps should be avoided. Many falls and injuries to both occupant and helper can occur when inexperienced people are carrying out this operation, and if users or carers are concerned about a particular hazard in the usage environment, which they must regularly overcome, they should consult their wheelchair rehabilitation service, or community services department, as appropriate.

There may still be occasions when steps must be negotiated. In the event of the chair having detachable pushing handles, these should be checked for security in the locked position before attempting this manoeuvre. Stabilisers may require removal if they interfere with the chair balance angle on a flight of steps. This should first be checked out with an unoccupied chair.

Two attendants at least are required for this operation. The attendant supporting the main load should grip the chair at the push handles, and repeat the procedure as section 2.6 for getting down a kerb at each step, the second attendant at the front will be required to guiding the footrest area, and provide reassurance to the occupant. A third person could act as guide for the chair team if the steps are high. Reverse this procedure for going up a flight of steps, with the attendant supporting the main load at the push handles pulling, and the second attendant at the front guiding the chair using the corner of each side frame.

Specialist training for very experienced users to negotiate a flight of stairs independently is available, but this is beyond the context of this guide.

8. SEATBELTS (ALSO POSTURE BELTS)

The fitting of these should be considered in all circumstances where the chair is used outdoors, over a sloping surface or kerbs. Belts normally secure the occupant by means of a quick release buckle in the centre. In cases where the seatbelt is part of the postural/ clinically assessed needs, provision of a seatbelt will be covered by a clinical assessment.

A basic security seat belt may become required after a period of use, if the environment or method of use changes, or where the occupant feels a need for greater security in the wheelchair. These can be fitted retrospectively by a fully trained and competent technician, but if unable to utilise any of these instructions, contact either your NHS rehabilitation engineer or the manufacturer of the wheelchair.

A correctly fitted posture belt should fit over a user's pelvis at approximately 45 degrees from the anchor without obstruction from any part of the wheelchair (e.g. skirt guard or armrest). The posture belt should be adjusted so as to fit snugly around the user's pelvis to provide an appropriate sitting position. The adjustment of the belt must be carried out by a competent person who is able to assess the client's needs and frequency of checking of the belt adjustment.

Future reviews of an individuals needs should include consideration of the appropriateness of the posture belt and its method of adjustment, fastening and release especially where a users' or carers' capabilities change over time.

Lengthening or shortening, is affected by slackening and adjusting the webbing, as it passes through the male part of the fastener until the desired fit is obtained. This adjustment covers the Loop style Lapbelt (Fig 17a); the two piece style Lapbelt offers more adjustment options by able to alter to belt from both right and left hand sides using the integral slider (Fig 17b). When adjusted ensure the webbing is tightened, the buckle is located centrally, and the surplus webbing is secured by the tri-glide provided.

Inspection and maintenance of posture belts and their fittings should be included within the planned preventative maintenance programme for the wheelchair.

Wheelchair seatbelts are not tested to meet the crash test standards required for occupant restraint in a vehicle, but we advise that they should remain in position during a journey to provide occupant security, and support during normal traffic movements of sideways cornering and speed changes.

Transportation, crash tested restraints for both wheelchair and occupant are part of the actual vehicle equipment, and must be secured to the vehicle itself, as shown in **Fig.18**

N.B. The Posture Belt (**Fig 17b**) affixes direct to the side frame as per photo using existing fastenings.

Clean if required, using a damp cloth with a small amount of washing up liquid. Rinse with a clean damp cloth.

Fig 17b
Side fastening posture belt fastening; the brackets of the belt are secured via the existing bolt / nut configuration that affixes the wheel mounting bracket to the side frame.

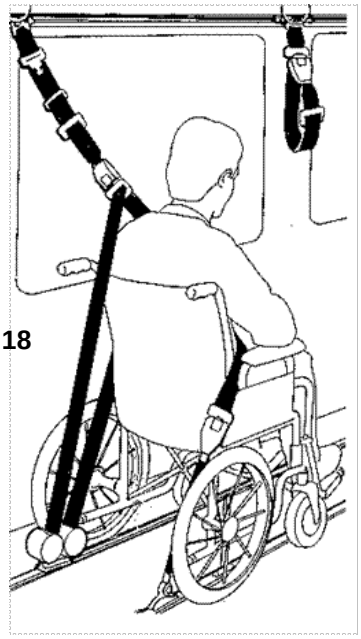
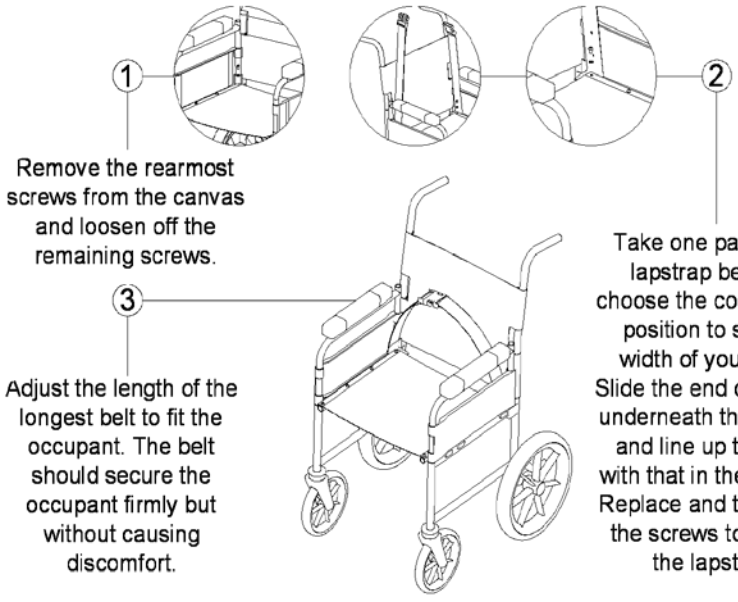
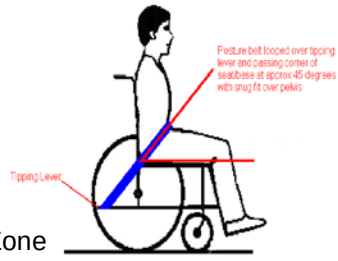
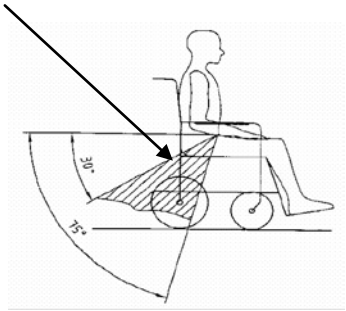


Fig 18

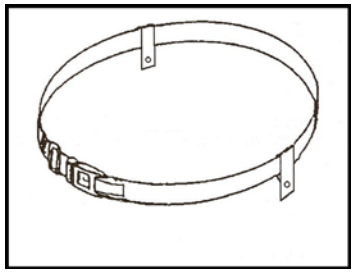

1
2
Remove the rearmost screws from the canvas and loosen off the remaining screws.
3
Adjust the length of the longest belt to fit the occupant. The belt should secure the occupant firmly but without causing discomfort.
Take one part of the lapstrap belt and choose the correct hole position to suit the width of your chair Slide the end of the belt underneath the canvas and line up the hole with that in the canvas. Replace and tighten all the screws to secure the lapstrap.



Preferred Zone



Loop Style Lapbelt



WARNING – DO NOT disassemble, shorten, cut or drill this retaining belt, it could seriously compromise the belts integrity and invalidate any manufacturers warranty.

9. OCCUPANT CONTROLLED MOBILITY

Handrims

These are provided for the occupant to grip and push round to propel the wheels. Best results will be obtained by a long pushing stroke, which gives a continuous and smooth forward motion. Many users find that gripping across the tyre and handrim at the same time gives better control. We recommend that when operating in this way, wheelchair gloves are worn.

Users with gripping difficulties may find larger section or Capstan types, with easy grip features, more practical.

When using a handrim to turn a chair round in a tight space, push one wheel forward, whilst pulling the other wheel backwards. Always make sure when carrying out this manoeuvre, that there are no obstructions or bystanders in the turning space required.

Balance Training

Physically active, independent people require wheelchairs, which allow them to safely negotiate kerbs and achieve efficient control and manoeuvrability.

It can be hazardous for an occupant to attempt wheelie positions on wheelchairs, which are stable above 10 degrees rearwards static stability, as physical effort needed to manoeuvre and pull a wheelie can be excessive, consequently increasing the risk of accidentally tipping over backwards.

Maximum efficiency of hand propulsion occurs when occupant centre of gravity and wheel centre coincide, and is dependent on the occupant shape and size. Physically active people should have wheelchairs with fine wheel position balance settings, i.e. below 10 degrees rearward stability. These chairs should have rear stabilisers when supplied to inexperienced users, allowing the user to practice balancing techniques with the reassurance that the chair will not accidentally tip over backwards.

During training, the Therapist, or Training Supervisor can therefore build up the confidence of the occupant in stages, by initially setting the wheelchair up in a safe balance position, with the stabilisers acting positively, and progressing gradually towards optimum performance settings, with the stabilisers only acting as a back up.

Once satisfied that the occupant has developed the full range of wheelchair skills, and provided that the medical condition is not compromised, the therapist can authorise removal of the stabilisers, and the occupant then takes full responsibility and control of the wheelchair.

STABILISERS ARE FOR OCCUPANT SAFETY. THEY SHOULD NOT BE REMOVED UNTIL THE USER IS ABLE TO DEAL WITH BACKWARD FALLS AND TIP OUTS

If stabilisers are removed for ascending or descending a flight of steps additional carers and handlers should be present, and they should be refitted when the manoeuvre has been completed.

Outdoor Safety Hints

Most pavements slope slightly towards the kerb and the wheelchair may have a tendency to pull towards the road. Occupant controlled Active User wheelchairs with cambered wheel setting reduce this tendency.

The fitting of polyurethane tyres eliminates punctures, and provides reassurance of not being stranded some distance from a service centre, but the use of these tyres imposes a harder ride and the wheels must be checked more frequently, to ensure that there is no deterioration of spoke tension and security. Polyurethane tyres have slightly less grip than pneumatic tyres; therefore, self propelled chairs fitted with polyurethane tyres are also fitted with a high friction brake shoe grip.

When out at night, ensure that both you and your wheelchair are visible, consider both clothing, and light reflective trim features.

10. TRANSPORTATION

Wherever possible it is recommended that wheelchair occupants transfer to a vehicle seat during a journey, with the wheelchair securely stored separately in a purpose made storage area.

Stowing the wheelchair in a car boot

The folded chair should be placed close to the car boot with armrests, footrests and other removable parts detached to split total weight into component form. Wheelchairs with detachable wheels reduce the weight for lifting. The person stowing the chair should grip convenient fixed parts of the chair, and lift keeping the back straight, bending from the hips and knees. If in any doubt about handling the weight, assistance should be sought.

Car Driver Information

Physically active wheelchair users can drive cars and store the wheelchair in the car independently, with a lot of practice. Training at specialist driving centres is recommended. Two door cars provide the greatest access space. Gaining entry to the car first involves side transfer as section 3. When carrying this manoeuvre wheelchair users should chose a position where there is no risk of interference from other traffic.

The stored wheelchair requires locating not only so that the driver can reach it, but also to remain safely secured during the journey.

With sideways folding wheelchairs the driver should pull the folded wheelchair into the vehicle into space behind driver or passenger seat. **see figs 19 &20.**

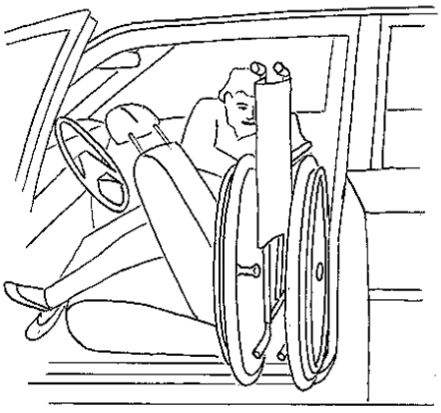
Fixed frame wheelchairs, with quickly detachable wheels can be disassembled once the driver has transferred into the car. The parts then being stored safely within the vehicle.

It is recommended that wheelchairs stored on the front passenger seat are secured using the car seat belt through the frame. A wheel bag may be useful for long journeys or for keeping dirt away from the car seating area. When there is another able bodied passenger present, the storing options as section 9.1 are recommended.

FIG 19

A Sideways Folding wheelchair can be stored behind the front seat.

FIG 20



Guidelines for Wheelchair & Occupant Transportation in Vehicles

This information is given in order to reduce the risk of bad practice. It is based on current available knowledge. Wheelchair users and transport operators have a responsibility to ensure that safety measures take account the needs of wheelchair occupants and other passengers to minimise the risks involved for each individual situation. Vehicles transporting wheelchair occupants should have safe, secure wheelchair access, transport operators should recognise this. Available publications are Safe Transportation of Wheelchairs, DB2001(03) June 2001, Safe Use of Wheelchairs and Vehicle mounted Passenger Lifts. DB2003(03).

Public Transport

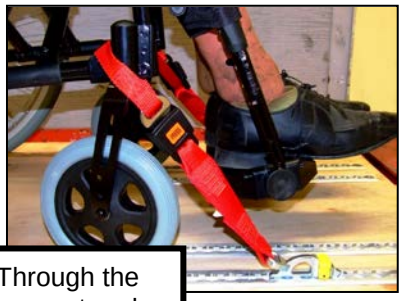
Wheelchair users who choose to travel in a local bus or public service vehicle should recognise that this involves risk, and a complexity of related issues. The user has a responsibility to make the decision of how to travel carefully. Pre journey planning will avoid difficult access situations, which could be encountered later, when it is too late to do anything about it. In busy, congested areas, users will require skill to avoid collisions with other passengers, when approaching and boarding the vehicle. Wheelchair brakes may not hold a chair and occupant stable against inertia forces of normal traffic conditions, such as cornering or coming to a halt, and wheelchairs in vehicles should be prevented from moving by other means. Dept of Transport approved designated wheelchair areas in low floor buses with support pillars and hand rails at wheelchair height are the most suitable. Users are advised to check availability of wheelchair facilities with the transport vehicle operator, and note time schedules.

Specialised Transport for Wheelchair Occupants.

These vehicles should be fitted with approved restraint systems. Dept of Transport approved taxis for individuals are available, but users with neck problems are advised to check that there is adequate headroom.

Restraint systems for minibuses range from wheelchair tie downs, to more compact foldaway devices. Installers and operators of vehicles with restraint systems must be trained in their correct use by the restraint manufacturer, or approved mobility specialist. The CTA can provide useful advice. R Healthcare have actively participated in the creation of new safety standards in this area through membership of BSTA, in co-operation with the Dept of Transport & B.S I. The resultant standard, BS EN ISO 10542 states the following:

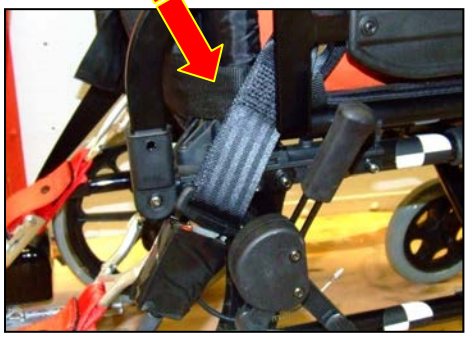
The wheelchair must be secured to the floor by a restraint system, preferably in line with direction of travel. The wheelchair should not be occupied by more than one person. Fittings such as trays should be stowed separately. Wheelchairs used for transportation of occupants in vehicles should have a full height backrest of at least 415 mm for adults, head supports are recommended.



11. TIE DOWN PROCEDURE

R Healthcare recommend Unwin Tie Down and Occupant Restraints.

Through the armrest and over the side frame.



Unwin's provide in depth training courses for the application of their products which meet the ISO 10542 standards, and have a proven test record with the R Healthcare wheelchair range.

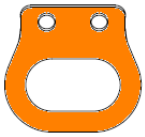
We recommend that persons responsible for securing wheelchairs in vehicles attend an Unwin training course, or any other informative training applicable to the usage environment.

Restraint systems should only be fitted in specially adapted vehicles, where the structure has been strengthened to take wheelchair location points. Details of Unwin systems we have tested are as follows. There are similar products available from other suppliers, which we know, have also been tested satisfactorily, and if used these should be applied as per the supplier's recommendation.

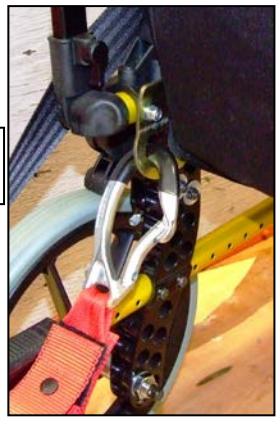
Tie Down Point labels on all R Healthcare supplied chairs indicate the correct position to attach karabiner type chair restraints. Continuous product improvement has resulted in new design chairs having specific tie down karabiner locations to enable correct and easy attachment by the transport operator.

The following reference covers Unwin chair restraints only.

WHEELCHAIR RESTRAINT TYPE UNWIN PART NO.
DASH 4 LIFE 4 Point Webbing with Karabiner W120



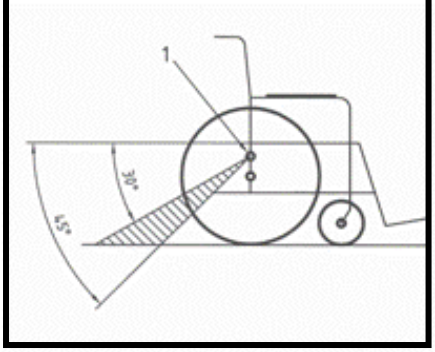
Rear Tie Down Bracket
Colour - Orange



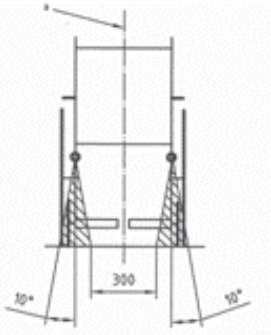
The model Dash 4 Life has been crashed tested successfully to ISO 7176-19 which is for forward facing with tie downs.

Wheelchair Seat Belts and Posture Belts are not crash tested restraints, although they help keep an occupant in a preferred position during normal vehicle motion. To meet crash safety standards, wheelchair and occupant must be secured to the vehicle independently. The occupant restraint should be secured directly to the vehicle at a point above shoulder height. No component of a wheelchair restraint should pass through the wheels. Wheelchair restraints should secure the wheelchair in such a manner that they cannot become free if chair components deform, or if one or more tyres deflate. Under no circumstances should wheelchairs be modified or strained to allow installation of clamps or fittings.

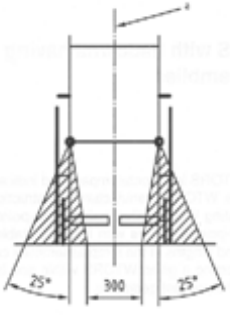
The side-view projected angle for the rear tiedown straps is between 30°and 40° from the horizontal.



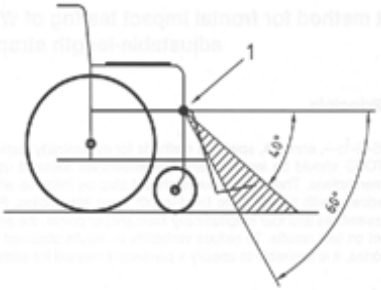
The side-view projected angle for the front tiedown straps is between 40° and 60



The rear-view projected angle of the rear tiedown straps is within 10° of the wheelchair reference plane.



The front-view projected angle of the front tiedown straps is within 25° of the wheelchair reference plane, but angled so as to provide some lateral stability to the wheelchair.



12. FIRE PRECAUTIONS

When using the chair, both indoors and outside, always take precautions against fire risks. Avoid smoking, and do not park the wheelchair against an open fire, or intense heat source. Bear in mind that the temperatures reached in a hatchback car on a hot day can cause stored wheelchair component parts to become too hot to handle. When parking, the pusher should position the chair so that the occupant can see and communicate as well as possible. In buildings check that fire exits and procedures are understood.

DISABLED PERSONS ARE AT GREATER RISK THAN OTHERS IN THE EVENT OF A FIRE. THE ENVIRONMENT IN WHICH A WHEELCHAIR IS USED SHOULD INCORPORATE SAFETY PRECAUTIONS TO MINIMISE FIRE RISK TO WHEELCHAIR OCCUPANTS

GENERAL PRECAUTIONS & INFORMATION

Warranty

R Healthcare guarantees the products supplied to be free from manufacturing defects, and will replace components where necessary free of charge, for a period of **24 months** from the date of purchase as long as the product has not been deemed to have been subject to miss-use. This guarantee is subject to the condition that the product has been used, adjusted and maintained in accordance with the user and maintenance instructions supplied by R Healthcare.

This does not affect your statutory rights. A more complete warranty statement is available on request from Authorised Distributor or Disablement Service Centre.

The recommended lifetime of the model Dash 4 Life is Five years from purchase date.

Service

Service Records should be completed by the Authorised Distributor Servicing Department and retained by the user as a reference. Service checks should be carried out by the Authorised Distributor at the recommended interval specified on the Service Record. Batch code and serial numbers are essential for the specification of spare parts. If in doubt, your Authorised Dealer or Rehabilitation Specialist will be able to provide help and professional advice on correct and safe use of wheelchairs. There are also many national and local organisations, which will be pleased to provide help and advice for wheelchair users.

All R Healthcare wheelchairs are designed with the needs of disabled people in mind. We hope that our wheelchairs provide their users with the reliability, freedom or independence they need for a more improved lifestyle.

R Healthcare Group has a policy of constant product improvement and reserves the right to change specifications without prior notice.

This guide contains information of a general nature. All models and attachments have specific features and will have additional information provided showing correct operation method.

UNAUTHORISED WHEELCHAIR MODIFICATIONS MAKE THIS WARRANTY VOID. R HEALTHCARE ARE NOT RESPONSIBLE FOR ANY ACCIDENT RESULTING FROM SUCH UNAUTHORISED MODIFICATIONS.

13. LOOKING AFTER YOUR WHEELCHAIR - GENERAL CARE AND MAINTENANCE

READ ALL INFORMATION PROVIDED BEFORE ATTEMPTING TO USE

Users should not attempt major repairs or modifications. Approved Distributors have full Service Information and are able to advise if the chair becomes damaged, requiring major part replacement, or refitting. If in any doubt about service requirements, contact the Approved Distributor. The R Healthcare Customer Services Dept is also available for more information The Service Record included with this Information Guide, has details of model references to be quoted when Service Information is requested.

Frequency of distributor service maintenance depends on usage level. We recommend that chairs are checked by the distributor at assessed intervals, according to the level of use and usage environment. Warranty can be affected if a wheelchair is not adequately maintained.

Users should note that wheelchairs retain appearance if looked after and cleaned regularly, referring to the list below for routine maintenance and safety checks, which they are responsible for.

Information received from upholstery manufacturer
The fabric used for wheelchair upholstery is easily cleaned in-situ. However, as there are some substances which may affect the material, careful attention to REGULAR cleaning will not only prolong its life but will ensure that its appearance is maintained.

Resistance to stains and chemicals
The upholstery is resistant to most mild acids, alkalis and household stains. Some substances such as ball-point pen ink, lipstick, newsprint and food colourings may be absorbed by the vinyl and cause permanent staining. This can often be minimised by immediate cleaning with a damp, soapy cloth or sponge

Cleaning
To maintain its appearance, the fabric should be cleaned REGULARLY to remove fatty substances in soiling, which may reduce its service life. Light soiling can be removed by adding a small amount of washing up liquid to some warm water and then applying to the fabric with a cloth. Rinse off with clean water before allowing to dry. If need be, a Mild solution of antiseptic can be applied to the fabric.

Do not use
Chemical bleaching materials, abrasive cleaners, wax polishes or aerosol spray polishes. The use of these substances is likely to be harmful to PVC laminates and repeated use can result in the removal of plasticiser from the PVC compound which will result in hardening and subsequent cracking of the material's surface.

PRESERVATION & STORAGE

If the wheelchair can not be kept indoors, then it is recommended as a minimum consideration that the wheelchair is stored in garage type conditions, away from wet or damp areas.

During the course of general use, the wheelchair may become wet, due to rain and such events. When practical the wheelchair should be wiped down with a dry cloth, this is to reduce the risk of corrosion.

Where wheelchairs are stored in the back of cars and similar transportation vehicles, there are occasions especially in hotter climatic conditions such as summer, it is advisable to cover the wheelchair with a suitable cover. This will reduce the risk of the wheel becoming hot, having an effect on user or carer handling the chair out of the vehicle.

When a doubt exists, where the wheelchair has suffered constant miss use of storage, the wheelchair should be removed from the client, and disposed of.

14. SERVICE CHECK LIST

Brakes	The brake should hold the chair on a ramp angle of approx. 10 degrees. Try the chair on a slope or ramp, which you may use. If necessary, have the brake readjusted.
Wheels	Check general condition, free running and clearance in hubs, wheel wobble of 3mm measured at rim is acceptable, excessive movement is an indication of wear. Chairs fitted with puncture free tyres in particular will require frequent checks on spoke security, and any spoke looseness or other fault should be brought to the attention of the Approved Distributor.
Tyres	Ensure correct tyre pressure, and tread condition. Valves are Schrader (as cars); pressure is 45 psi (3 Bar or 300 Kilo Pascal's). To avoid risk of over inflation, we do not recommend use of high pressure airlines. Badly worn tyres should be replaced.
Handrims	Check security of fixing, and damage to surface which could cause cut fingers
Moving Parts	Occasional lubrication of sliding parts and pivots. We recommend the use of a non toxic lubricant is used e.g. Superlube Plus (from Lubrication Services) which is FDA approved for food use, will allow easy operation.
Upholstery	The upholstery should be wiped with a damp cloth. Marks can be removed using a mild detergent. Pressure washing is not recommended. Damage should be repaired before it causes problems. A slight catch in the upholstery may result in a longer tear if not dealt with when it first occurs.
Frame and Fittings	Paint work can be protected using a proprietary car wax polish. Check that all detachable parts latch in correctly and positively, particularly push handles, footrests, armrests and stabilisers where appropriate. Check all injection moulded components for possible stressing and sharp edges
Handgrips	Ensure that the Handgrips are secure. If grips are loose or damaged the wheelchair is unsafe and the grips must be replaced. Replacement grips and method of fitting must be to R Healthcare approved specification.

15. Useful addresses

M.H.R.A Medicines & Healthcare

Products Regulatory Agency
Wheeled Mobility Centre
241 Bristol Avenue
Bispham
Blackpool
FY2 0BR
Tel 01253 596000
Fax 01253 596177
Website: www.mrha.gov.uk

BHTA British Healthcare Trades Association
New Loom House
Suite 4.06
101 Back Church Lane
London
E1 1LU
020 7702 2141
020 7680 4048
Website: www.bhta.com
E-mail: bhta@bhta.com

Unwin C.N.Unwin Ltd
The Horseshoe
Coat Road
Martock
Somerset
TA12 6EY
Tel 01935 827740
Fax 01935 827760
Website: www.unwin-safety.com

R Healthcare
Sheffield Road
Whittington
Chesterfield
Derbyshire
S41 8NJ
Tel 0870 60 90 600
E-Mail: sales@R Healthcarehealthcare.com
Website: www.R Healthcarehealthcare.com

Dash Life - SINGLE CROSS BRACE - 125KG	Front Back Post Position	Rear Back Post Position
Max occupant weight (advised)	125KG	125KG
Stump Support	YES	YES
Elevating Legrest	YES	YES
Seating area dimensions		
Seat Width	305, 330, 355, 380, 405, 430, 455mm	305, 330, 355, 380, 405, 430, 455mm
Seat Depth	405mm	430mm & 455mm
effective width	350mm to 500mm	350mm to 500mm
effective depth	412mm	437mm & 462mm
backrest canvas height	450mm & 510mm	450mm & 510mm
backrest frame angle from seat	0, 5, 10, 15, 20 degrees	0, 5, 10, 15, 20 degrees
seat frame angle from horizontal	3 to 7 degrees	3 to 7 degrees
side transfer by swivelling arms upwards	ALL MODELS	ALL MODELS
compact outward swivelling footrest	ALL MODELS	ALL MODELS
height of armrests (height adjustable)	200mm to 280mm	200mm to 280mm
occupant leg to seat angle	90 degrees	90 degrees
footrest to seat adjustable height	320mm to 450mm	320mm to 450mm
seat front edge to ground	405mm to 505mm	405mm to 505mm
push handle height	905mm	905mm
Corridor widths to turn (315mm wheel)		
through 360° between walls (includes attendant)	1450mm to 1600mm	1450mm to 1600mm
Corridor widths to turn (24" wheel)		
through 360° between walls (includes attendant)	1560mm to 1710mm	1560mm to 1710mm
Overall Dimensions (315mm)		
open width	465mm to 615mm	465mm to 615mm
open length	905mm to 1030mm	905mm to 1030mm
open height	950mm & 1010mm	950mm & 1010mm
folded width	310mm	310mm
folded length	755mm	755mm
folded height	730mm	730mm
Overall dimensions (24")		
open width	515mm to 715mm	515mm to 715mm
open length	970mm to 1095mm	970mm to 1095mm
open height	950mm & 1010mm	950mm & 1010mm
folded width	520mm	520mm
folded length	835mm	835mm
folded height	745mm	745mm
Rear wheel		
Quick Release	ALL MODELS	ALL MODELS
diameter	315mm / 560mm / 610mm	315mm / 560mm / 610mm
width	40mm / 35mm / 35mm	40mm / 35mm/ 35mm
Front castor 6" or 8"		
diameter	150mm / 200mm	150mm / 200mm
width	32mm	32mm
total weight for lifting (frame only 315mm)	10.2kg	10.2kg
total weight for lifting (315mm including all det components)	16.8kg	16.8kg
Total weight for lifting (frame only 22" & 24" s/p	10.2kg	10.2kg
Total weight for lifting 22" & 24" s/p (including all det components)	18.7kg	18.7kg
Dynamic test ISO 7176-8 (rolling road)	200,000 revs	200,000 revs
Dynamic test ISO 7176-8 (kerb drop)	6666 drops	6666 drops

Dash Life - DOUBLE CROSS BRACE - 135KG	Front Back Post Position	Rear Back Post Position
Max occupant weight (advised)	135KG	135KG
Stump Support	YES	YES
Elevating Legrest	YES	YES
Seating area dimensions		
Seat Width	455, 480, 505mm	455, 480, 505mm
Seat Depth	405mm	430 / 455mm
effective width	500mm to 550mm	500mm to 550mm
effective depth	412mm	437, 462mm
backrest canvas height	450mm & 510mm	450mm & 510mm
backrest frame angle from seat	0, 5, 10, 15, 20 degrees	0, 5, 10, 15, 20 degrees
seat frame angle from horizontal	3 to 7 degrees	3 to 7 degrees
side transfer by swivelling arms upwards	ALL MODELS	ALL MODELS
compact outward swivelling footrest	ALL MODELS	ALL MODELS
height of armrests (height adjustable)	200mm to 280mm	200mm to 280mm
occupant leg to seat angle	90 degrees	90 degrees
footrest to seat adjustable height	320mm to 450mm	320mm to 450mm
seat front edge to ground	405mm to 505mm	405mm to 505mm
push handle height	905mm	905mm
Corridor widths to turn (315mm wheel)		
through 360° between walls (includes attendant)	1450mm to 1600mm	1450mm to 1600mm
Corridor widths to turn (24" wheel)		
through 360° between walls (includes attendant)	1560mm to 1710mm	1560mm to 1710mm
Overall Dimensions (315mm)		
open width	615mm to 665mm	615mm to 665mm
open length	905mm to 1030mm	905mm to 1030mm
open height	950mm & 1010mm	950mm & 1010mm
folded width	310mm	310mm
folded length	755mm	790mm
folded height	730mm	730mm
Overall dimensions (24")		
open width	675mm to 725mm	675mm to 725mm
open length	970mm to 1095mm	970mm to 1095mm
open height	950mm & 1010mm	950mm & 1010mm
folded width	520mm	520mm
folded length	835mm	835mm
folded height	745mm	745mm
Rear wheel		
Quick Release	ALL MODELS	ALL MODELS
diameter	315mm / 560mm / 610mm	315mm / 560mm / 610mm
width	40mm / 35mm / 35mm	40mm / 35mm/ 35mm
Front castor 6" or 8"		
diameter	150mm / 200mm	150mm / 200mm
width	32mm	32mm
total weight for lifting (frame only 315mm)	10.2kg	10.2kg
total weight for lifting (315mm including all det components)	16.8kg	16.8kg
Total weight for lifting (frame only 22" & 24" s/p	10.2kg	10.2kg
Total weight for lifting 22" & 24" s/p (including all det components)	18.7kg	18.7kg
Dynamic test ISO 7176-8 (rolling road)	200,000 revs	200,000 revs
Dynamic test ISO 7176-8 (kerb drop)	6666 drops	6666 drops

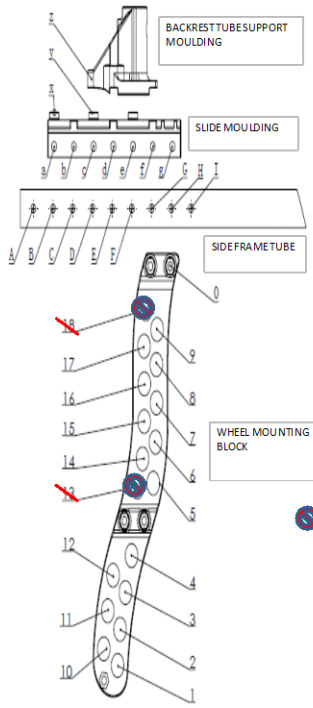
Dash Life - TRIPLE CROSS BRACE - 170KG & 190KG	Front Back Post Position	Rear Back Post Position
Max occupant weight (advised)	170KG & 190KG	170KG & 190KG
Stump Support	YES	YES
Elevating Legrest	YES	YES
Seating area dimensions		
Seat Width	505, 555, 610mm	505, 555, 610mm
Seat Depth	405mm	455, 480, 505mm
effective width	515mm to 620mm	515mm to 620mm
effective depth	412mm	462, 487, 512mm
backrest canvas height	450mm & 510mm	450mm & 510mm
backrest frame angle from seat	0, 5, 10, 15, 20 degrees	0, 5, 10, 15, 20 degrees
seat frame angle from horizontal	3 to 7 degrees	3 to 7 degrees
side transfer by swivelling arms upwards	ALL MODELS	ALL MODELS
compact outward swivelling footrest	ALL MODELS	ALL MODELS
height of armrests (height adjustable)	200mm to 280mm	200mm to 280mm
occupant leg to seat angle	90 degrees	90 degrees
footrest to seat adjustable height	320mm to 450mm	320mm to 450mm
seat front edge to ground	405mm to 505mm	405mm to 505mm
push handle height	905mm	905mm
Corridor widths to turn (315mm wheel)		
through 360° between walls (includes attendant)	1700mm to 1800mm	1700mm to 1800mm
Corridor widths to turn (24" wheel)		
through 360° between walls (includes attendant)	1810mm to 1910mm	1810mm to 1910mm
Overall Dimensions (315mm)		
open width	665mm to 765mm	665mm to 765mm
open length	905mm to 1030mm	905mm to 1080mm
open height	950mm & 1010mm	950mm & 1010mm
folded width	310mm	310mm
folded length	755mm	755mm
folded height	730mm	730mm
Overall dimensions (24")		
open width	725mm to 825mm	725mm to 825mm
open length	970mm to 1095mm	970mm to 1145mm
open height	950mm & 1010mm	950mm & 1010mm
folded width	520mm	520mm
folded length	835mm	835mm
folded height	745mm	745mm
Rear wheel		
Quick Release	ALL MODELS	ALL MODELS
diameter	315mm / 560mm / 610mm	315mm / 560mm / 610mm
width	40mm / 35mm / 35mm	40mm / 35mm/ 35mm
Weight Rated 315mm wheels Identification.	170kg Black Hub & Tyre 190kg Grey Hub & Tyre	170kg Black Hub & Tyre 190kg Grey Hub & Tyre
Front castor 6" or 8"		
diameter	150mm / 200mm	150mm / 200mm
width	170kg is 32mm wide 190kg is 50mm wide	170kg is 32mm wide 190kg is 50mm wide
total weight for lifting (frame only 315mm)	12.7kg	12.7kg
total weight for lifting (315mm including all det components)	18.3kg	18.3kg
Total weight for lifting (frame only 22" & 24" s/p	12.7kg	12.7kg
Total weight for lifting 22" & 24" s/p (including all det components)	20.4kg	20.4kg
Dynamic test ISO 7176-8 (rolling road)	200,000 revs	200,000 revs
Dynamic test ISO 7176-8 (kerb drop)	6666 drops	6666 drops

DASH 4 LIFE WHEEL CONFIGURATION CHART

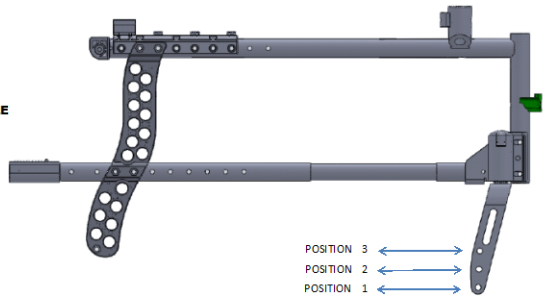
⚠CAUTION

The dynamic stability has been tested and approved on a 6 degree slope in the self propelled model over a 5 meter field trial whilst the wheels were set in the factory setting position 3. Recommend that pre assessment of end user is carried out by trained personnel prior to being prescribed the wheelchair where there is a possibility that the product will be used in this type of environment.

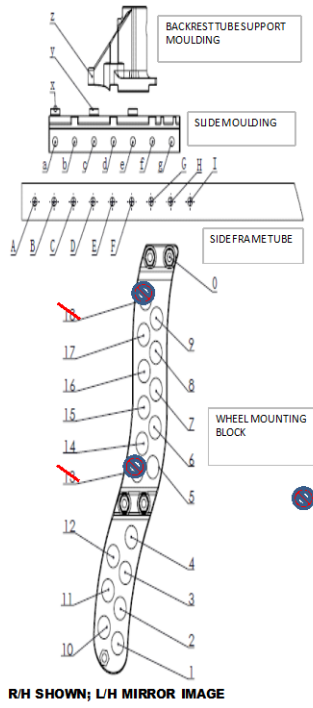
24" WHEEL 8" CASTOR



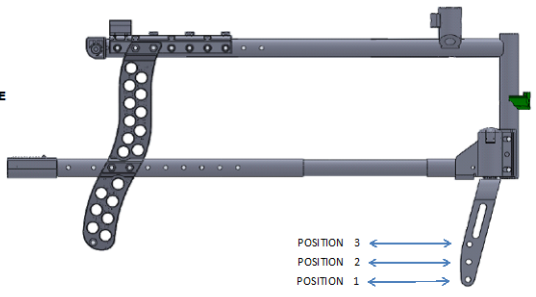
Backpost Tube Support Moulding position	Slide Moulding to side frame tube	Assessment Setting	Wheel mounting block to Side frame sub assembly	Available rear wheel set position	Available Seat to ground height	Factrory setting of Castor Wheel	STABILITY Front	STABILITY Back	STABILITY Side	Seat Angle range
18"	(g.G)+(z.x)	Active	(O.E)	6,7,8	20",19"18"	1,2, & 3	18°	9°-20.5°	18°	3° -7°
		Standard	(O.D)	6,7,8	20",19"18"	1,2, & 3				
		Amputee	(O.C)	6,7,8	20",19"18"	1,2, & 3				
		Double	(O.B)	6,7,8	20",19"18"	1,2, & 3				
17"	(g.H)+(z.x)	Active	(O.F)	14,15,16	20",19"18"	1,2, & 3	18°	9°-20.5°	18°	3° -7°
		Standard	(O.E)	6,7,8	20",19"18"	1,2, & 3				
		Amputee	(O.D)	6,7,8	20",19"18"	1,2, & 3				
		Double	(O.C)	6,7,8	20",19"18"	1,2, & 3				
16"	(g.G)+(z.y)	Active	(O.G)	14,15,16	20",19"18"	1,2, & 3	18°	9°-20.5°	18°	3° -7°
		Standard	(O.F)	14,15,16	20",19"18"	1,2, & 3				
		Amputee	(O.E)	6,7,8	20",19"18"	1,2, & 3				
		Double	(O.D)	6,7,8	20",19"18"	1,2, & 3				



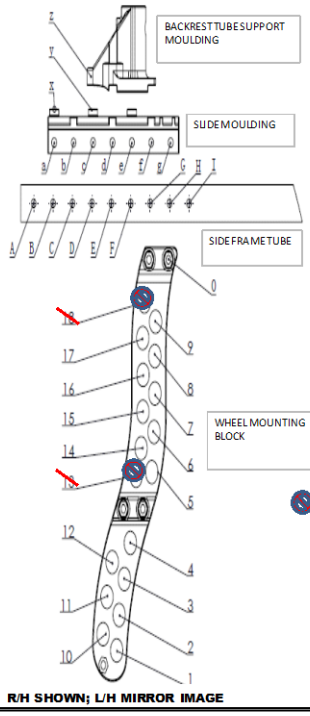
315 WHEEL x 8 inch CASTOR



Backpost Tube Support Moulding position	Slide Moulding to side frame tube	Assessment Setting	Wheel mounting block to Side frame sub assembly	Available rear wheel set position	Available Seat to ground height	Factrory setting of Castor Wheel	STABILITY Front	STABILITY Back	STABILITY Side	Seat Angle range
REAR 18"	(g.G)+(z.x)	Active	(O.E)	1,2,3	20",19"18"	1,2&3	18°	11.5°-23°	18°	3° -7°
		Factory Setting	(O.D)	1,2,3	20",19"18"	1,2&3				
		Amputee	(O.C)	10,11,12	20",19"18"	1,2&3				
		Double	(O.B)	10,11,12	20",19"18"	1,2&3				
17"	(g.H)+(z.x)	Active	(O.F)	1,2,3	20",19"18"	1,2&3	18°	12°-22°	18°	3° -7°
		Factory Setting	(O.E)	1,2,3	20",19"18"	1,2&3				
		Amputee	(O.D)	1,2,3	20",19"18"	1,2&3				
		Double	(O.C)	10,11,12	20",19"18"	1,2&3				
FRONT 16"	(g.G)+(z.y)	Active	(O.G)	1,2,3	20",19"18"	1,2&3	18°	14°-22°	18°	3° -7°
		Factory Setting	(O.F)	1,2,3	20",19"18"	1,2&3				
		Amputee	(O.E)	10,11,12	20",19"18"	1,2&3				
		Double	(O.D)	10,11,12	20",19"18"	1,2&3				

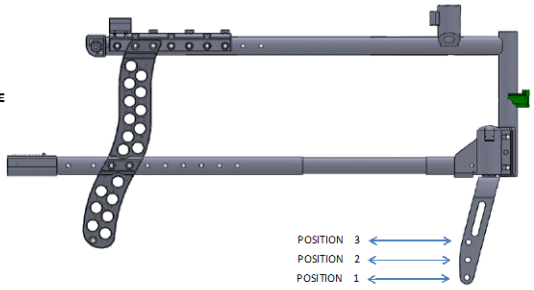


22" WHEEL 8" CASTOR



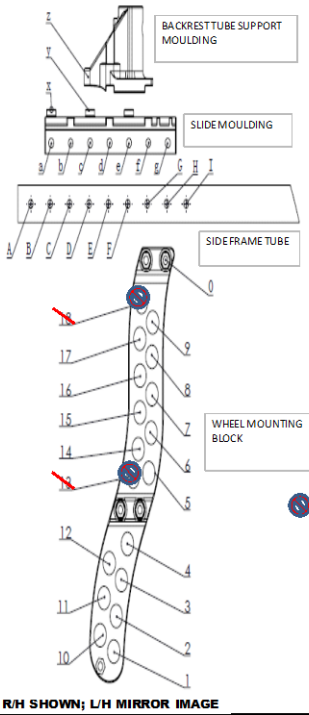
Backpost Tube Support Moulding position	Slide Moulding to side frame tube	Assessment Setting	Wheel mounting block to Side frame sub assembly	Available rear wheel set position	Available Seat to ground height	Factrory setting of Castor Wheel	STABILITY			Seat Angle range
							Front	Back	Side	
18"	(g.G)+(z.x)	Active	(O.E)	14,15,16	20",19"18"	1,2,3	18°	12°-18°	18°	3° -7°
		Standard	(O.D)	14,15,16	20",19"18"	1,2,3				
		Amputee	(O.C)	14,15,16	20",19"18"	1,2,3				
		Double	(O.B)	14,15,16	20",19"18"	1,2,3				
17"	(g.H)+(z.x)	Active	(O.F)	14,15,16	20",19"18"	1,2,3	18°	8.5°-17°	18°	3° -7°
		Standard	(O.E)	14,15,16	20",19",18"	1,2,3				
		Amputee	(O.D)	14,15,16	20",19"18"	1,2,3				
		Double	(O.C)	14,15,16	20",19"18"	1,2,3				
16"	(g.G)+(z.y)	Active	(O.G)	14,15,16	20",19"18"	1,2,3	18°	12°-15°	18°	3° -7°
		Standard	(O.F)	14,15,16	20",19"18"	1,2,3				
		Amputee	(O.E)	14,15,16	20",19"18"	1,2,3				
		Double	(O.D)	14,15,16	20",19"18"	1,2,3				

NOT AVAILABLE



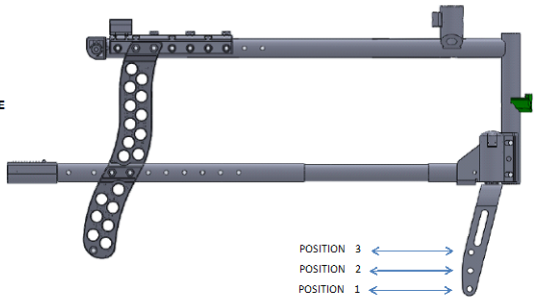
R/H SHOWN; L/H MIRROR IMAGE

22" WHEEL 6" CASTOR



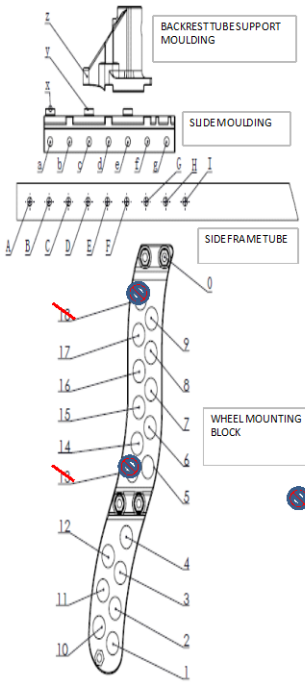
Backpost Tube Support Moulding position	Slide Moulding to side frame tube	Assessment Setting	Wheel mounting block to Side frame sub assembly	Available rear wheel set position	Available Seat to ground height	Factrory setting of Castor Wheel	STABILITY			Seat Angle range
							Front	Back	Side	
18"	(g.G)+(z.x)	Active	(O.E)	7,8,9	18",17", 16"	Available positions 1,2, & 3	18°	9°- 20.5°	18°	3° -7°
		Standard	(O.D)	7,8,9	18",17", 16"					
		Amputee	(O.C)	16,17	18",17", 16"					
		Double	(O.B)	16,17	18",17", 16"					
17"	(g.H)+(z.x)	Active	(O.F)	6,7,8	18",17", 16"	Available positions 1,2, & 3	18°	11°-21°	18°	3° -7°
		Standard	(O.E)	6,7,8	18",17", 16"					
		Amputee	(O.D)	6,7,8	18",17", 16"					
		Double	(O.C)	16,17	18",17", 16"					
16"	(g.G)+(z.y)	Active	(O.G)	7,8,9	18",17", 16"	Available positions 1,2, & 3	18°	13°-22°	18°	3° -7°
		Standard	(O.F)	7,8,9	18",17", 16"					
		Amputee	(O.E)	7,8,9	18",17", 16"					
		Double	(O.D)	16,17	18",17", 16"					

NOT AVAILABLE

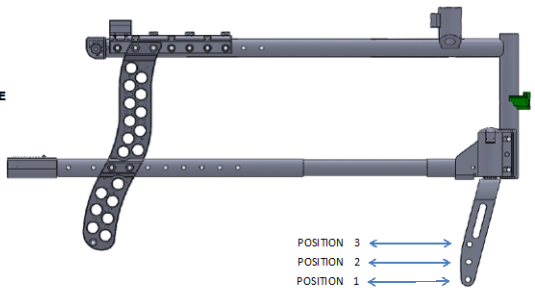


R/H SHOWN; L/H MIRROR IMAGE

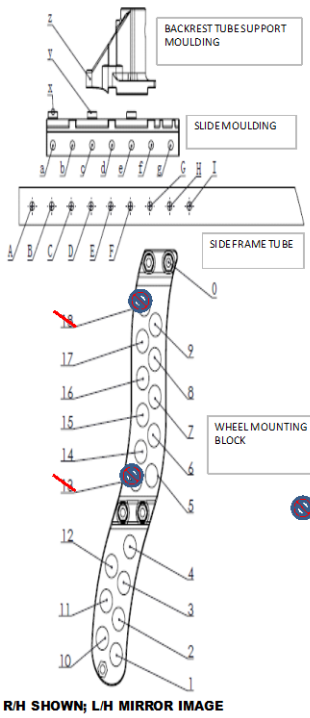
315 WHEEL x 8 inch CASTOR



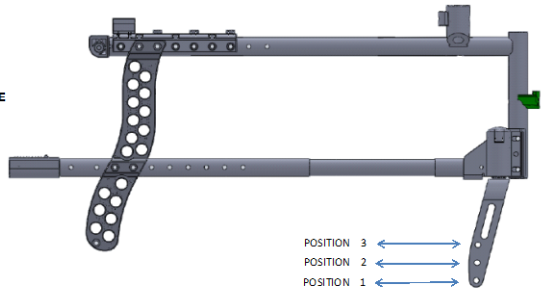
Backpost Tube Support Moulding position	Slide Moulding to side frame tube	Assessment Setting	Wheel mounting block to Side frame sub assembly	Available rear wheel set position	Available Seat to ground height	Factrory setting of Castor Wheel	STABILITY			Seat Angle range
							Front	Back	Side	
REAR 18"	(g.G)+(z.x)	Active	(O.E)	1,2,3	20",19"18"	1,2&3	18°	11.5°-23°	18°	3° -7°
		Factory Setting	(O.D)	1,2,3	20",19"18"	1,2&3				
		Amputee	(O.C)	10,11,12	20",19"18"	1,2&3				
		Double	(O.B)	10,11,12	20",19"18"	1,2&3				
17"	(g.H)+(z.x)	Active	(O.F)	1,2,3	20",19"18"	1,2&3	18°	12°-22°	18°	3° -7°
		Factory Setting	(O.E)	1,2,3	20",19"18"	1,2&3				
		Amputee	(O.D)	1,2,3	20",19"18"	1,2&3				
		Double	(O.C)	10,11,12	20",19"18"	1,2&3				
FRONT 16"	(g.G)+(z.y)	Active	(O.G)	1,2,3	20",19"18"	1,2&3	18°	14°-22°	18°	3° -7°
		Factory Setting	(O.F)	1,2,3	20",19"18"	1,2&3				
		Amputee	(O.E)	10,11,12	20",19"18"	1,2&3				
		Double	(O.D)	10,11,12	20",19"18"	1,2&3				



315 WHEEL x 6 inch CASTOR



Backpost Tube Support Moulding position	Slide Moulding to side frame tube	Assessment Setting	Wheel mounting block to Side frame sub assembly	Available rear wheel set position	Available Seat to ground height	Factrory setting of Castor Wheel	STABILITY			Seat Angle range
							Front	Back	Side	
18"	(g.G)+(z.x)	Active	(O.E)	3	18"	2	18°	9°-20.5°	18°	3° -7°
		Standard	(O.D)	3	18"	2				
		Amputee	(O.C)	3	18"	2				
		Double	(O.B)	3	18"	2				
17"	(g.H)+(z.x)	Active	(O.F)	3	18"	2	18°	9°-20.5°	18°	3° -7°
		Standard	(O.E)	3	18"	2				
		Amputee	(O.D)	3	18"	2				
		Double	(O.C)	3	18"	2				
16"	(g.G)+(z.y)	Active	(O.G)	3	18"	2	18°	9°-20.5°	18°	3° -7°
		Standard	(O.F)	3	18"	2				
		Amputee	(O.E)	3	18"	2				
		Double	(O.D)	3	18"	2				



18.

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